

VIA ELECTRONIC FILING

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
	)	
Amendment of Part 101 of the Commission's Rules to	)	WT Docket 10-153
Facilitate the Use of Microwave for Wireless Backhaul	)	
and Other Uses and to Provide Additional Flexibility to	)	
Broadcast Auxiliary Service and Operational Fixed	)	
Microwave Licenses (WT Docket No. 10-153).	)	

**REPLY OF WIRELESS STRATEGIES, INC.**

Wireless Strategies, Inc. ("WSI") files this Reply to the Opposition of Verizon and Verizon Wireless<sup>1</sup> ("Verizon") to WSI's Petition for Reconsideration in the above-captioned proceeding.<sup>2</sup>

**A. WSI's PETITION MEETS THE STANDARDS FOR RECONSIDERATION**

As shown below WSI's petition does meet the standards for reconsideration and therefore should be granted, and further, it will be shown that Verizon's Opposition to Petition for Reconsideration has no merit.

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<sup>1</sup> Verizon and Verizon Wireless Opposition to Petition for Reconsideration, December 17, 2012

<sup>2</sup> Amendment of Part 101 of the Commission's Rules to Facilitate the Use of Microwave for Wireless Backhaul and Other Uses, Action by the Commission August 3, 2012, Second Report and Order, Second Further Notice of Proposed Rulemaking, Second Notice of Inquiry, Order on Reconsideration, and Memorandum Opinion and Order (FCC 12-87).

## **B. VERIZON ARGUES AGAINST DECADES OF PRECEDENCE**

Fact: For decades Rule 101.103 has prevented and will continue to prevent a new applicant using any compliant (Category A) or non-compliant (Category B) antenna from causing harmful interference to existing stations. Even the Fixed Wireless Communications Coalition agrees: "WSI correctly notes that Section 101.103 prevents any *proposed* antenna for a new link from causing harmful interference to existing licensees..."<sup>3</sup>

Fact: For decades Rule 101.115(c) has prevented and will continue to prevent any non-compliant (Category B) antenna from causing harmful interference and blocking new applicant paths: "*The Commission shall require the replacement of any antenna or periscope antenna system of a permanent fixed station operating at 932.5 MHz or higher that does not meet performance Standard A specified in paragraph (c) of this section, at the expense of the licensee operating such antenna, upon a showing that said antenna causes or is likely to cause interference to (or receive interference from) any other authorized or applied for station whereas a higher performance antenna is not likely to involve such interference.*" Note that the benchmark is the Category A specification, not a Category B specification. Also note that Verizon never mentions the above requirement, which goes counter to their argument.

## **C. VERIZON'S ARGUMENTS IGNORE THE FUNDAMENTALS OF THE COORDINATION PROCESS**

The prior coordination procedure is the same for any new applicant. The new applicant is required to provide the actual antenna model number, antenna gain and the antenna pattern. The Category B specifications are neither required nor used for this analysis. Therefore not having a Category B specification would not complicate the coordination process.

In addition, the Commission has stated that it is unaware of instances where interference disputes (regarding operators of non-compliant antennas) have precluded the placement of links in a

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<sup>3</sup> See FWCC filing December 5, 2012, page 5, line 2.

given area, and has asked for examples of where interference problems have precluded others from using spectrum within a given area<sup>4</sup>. No one has provided any such examples.

**D. RECONSIDERATION IS IN THE PUBLIC INTEREST AS IT WOULD SPEED THE ROLLOUT OF BROADBAND NETWORKS, SAFELY BRING NEW BROADBAND SERVICES TO UN-SERVED AND UNDERSERVED COMMUNITIES AND MARKETS, AND ELIMINATE UNNEEDED REGULATIONS.**

The major goal of this proceeding<sup>5</sup> is to bring broadband to un-served and underserved communities and markets. It is estimated<sup>6</sup> that 23 million homes are without broadband access, 76 million small- and medium-sized businesses are underserved,<sup>7</sup> and 70% of the backhaul market<sup>8</sup> is still served by slow and expensive T1 because it is not economical to provide service for the majority of service requirements via off-net fiber or point-to-point licensed microwave. It is meaningless to propose arbitrary specifications for non-compliant (Category B) antennas as a way to prevent harmful interference to existing licensees and pending applicants, and from blocking new applicant paths, since Rules 101.103, 101.115(c) and 101.115(f) achieve these goals. The harmful consequence of adding arbitrary and unneeded specifications is to prevent licensees from bringing broadband to un-served and underserved communities and markets by forcing licensees to use larger than necessary antennas.

Consider the following example: A mobile wireless carrier in a high rainfall rate area of the United States plans to upgrade cell site base stations to 4G and asks Alternate Access Carriers (AACs) to bid on providing 100 Mbps backhaul. Many of the base stations are several miles from fiber and in these circumstances the Fiber Alternate Access Carriers (FAACs) have determined that the cost to provide service via fiber is too expensive, and to no-bid these sites. However a Microwave Alternate Access Carrier (MAAC) determines that it can provide microwave service that meets the path availability using 6 GHz with a 2-foot diameter Andrew Model P2F-57 antenna at the base stations, and an interference analysis has shown that the

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<sup>4</sup> R&O FCC -12-87A1 par 69

<sup>5</sup> WT Docket 10-153

<sup>6</sup> Broadband Adoption and Take Rate Brief, [www.broadband-mapping.com](http://www.broadband-mapping.com)

<sup>7</sup> Today it is estimated 70% of small and mid-size business are served with expensive and slow (1.5 Mbps) T1, much slower than could be achieved with the latest microwave technologies at a much lower cost per bit.

<sup>8</sup> WSI's market research.

antenna with a transmitter power of 30 dBm will not cause harmful interference to existing licensees or applicants. The MAAC has also determined that it can achieve a monthly profit of \$100 per link. However, the superfluous B2 requirement of Rule 101.115 requires an antenna gain of 32 dBi (diameter of 3 feet). This is one foot larger than the Andrew P2F-57 antenna and would increase the monthly base station antenna site lease charges by \$150 per month, turning the monthly link profit of \$100 into a monthly loss of \$50. The MAAC is therefore forced to no-bid service to the mobile carrier due to an arbitrary unneeded requirement.

Notes:

1. Verizon's solution of moving to higher frequencies is unworkable due to rain outage, and adding repeaters at higher frequencies to overcome the rain outage problems is simply unfeasible due to the added – and dramatically higher – costs.
2. Comments that antennas not meeting Category B standards will make the coordination process more complicated do not make sense, since the procedure for coordinating a non-compliant antenna is identical with the procedure for coordinating a compliant antenna (in both cases the actual antenna pattern must be given and used in the coordination process).

## CONCLUSIONS

As shown above, Category B specifications:

- Do not prevent harmful interference
- Do not prevent the blocking of new applicants
- Are not used in the prior coordination process
- Do not make it easier to share spectrum
- Will cause higher than necessary costs with no demonstrable advantage.

Removing the unneeded and arbitrary Category B specifications from Rule 101.115 will still permit the safe use of small optimized antennas, finally permitting licensees to safely and cost-effectively provide broadband to the millions of un-served and underserved communities and to enterprise and backhaul markets. In doing so, the Commission would take the next step in advancing microwave backhaul and access.

For all the above reasons, the Commission should consider WSI's Petition for Reconsideration.

Respectfully submitted,

Michael Mulcay, Chairman

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December 26, 2012

### **CERTIFICATE OF SERVICE**

I, Michael Mulcay, Chairman of Wireless Strategies Inc. hereby state that true copies of the foregoing Reply of Wireless Strategies Inc. were sent this 26<sup>th</sup> day of December, 2012, by first class mail, postage prepaid to John T. Scott III, 1300 I Street N.W., Suite 400 West, Washington, D.C. 20005

Michael Mulcay

cc via email:

Julius Genachowski, Chairman  
Robert McDowell, Commissioner  
Mignon Clyburn, Commissioner  
Jessica Rosenworcel, Commissioner  
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